

IN THE UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 23-1418

STATE OF WEST VIRGINIA,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

PETITION FOR REVIEW OF A FINAL AGENCY ACTION OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

RESPONDENTS' RESPONSE BRIEF

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INTRODUCTION

Ozone pollution heeds no geographic boundaries, creating a “thorny causation” problem whereby emissions from some states unduly affect other states’ ability to attain federal air-quality standards, which are set at levels necessary to protect public health and the environment. *EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489, 497-99, 514 (2014). Congress enacted the Clean Air Act’s Good Neighbor Provision to remedy the problem of interstate transport of air pollutants, including ozone. The regime Congress established requires states to submit plans to EPA for eliminating their significant contribution to nonattainment or interference with maintenance of healthy air quality in any other state. EPA must determine whether states’ plans are adequate—if they are not, EPA must disapprove them.

The Good Neighbor Provision is particularly important for ozone, which can travel hundreds of miles, creating a nationwide problem. After EPA strengthened the federal ozone standard in 2015, states had to submit plans to meet their related Good Neighbor obligations. EPA carefully reviewed states’ submissions and reasonably disapproved 21 states’ submissions, including West Virginia’s, which claimed that West Virginia need not reduce its emissions even though it contributes to air quality problems in other states.

A motions panel of this Court published an opinion concluding that venue is proper. Doc. 51. EPA petitioned for rehearing en banc of that venue determination. Doc. 64. This Court “denied [EPA’s petition] as premature” because “[a] petition for rehearing may not be filed prior to entry of judgment.” Doc. 65 (citing Fed. R. App. P. 40(a)(1)). No such prohibition applies to sua sponte en banc rehearing, *see* L.R. 35(b), a course that EPA respectfully suggests would be appropriate here. *See W. Pac. R.R. Corp. v. W. Pac. R.R. Co.*, 345 U.S. 247, 262 (1953) (“Counsel’s suggestion need not require any formal action by the Court; it need not be treated as a motion; it is enough if the court simply gives each litigant an opportunity to call attention to circumstances in a particular case which might warrant a rehearing en banc.”). Otherwise, the merits panel should deny West Virginia’s petition for review for the reasons stated herein.

EPA can only approve state submissions that meet the requirements of the Good Neighbor Provision, and West Virginia’s submission does not. Despite concluding, based on modeling of its choosing, that West Virginia’s emissions contribute to other states’ air-quality problems, the State proposed no emissions reductions to address these contributions. Using legally and technically unsound bases, West Virginia discounted its own contributions by blaming other ozone-precursor sources and relying on preexisting control measures deemed necessary to meet other obligations, without analyzing whether those measures were sufficient

to meet the 2015 ozone standard. Applying its longstanding expertise in addressing interstate ozone pollution, EPA identified flaws in West Virginia’s submission that undermined the State’s conclusion that it did not significantly contribute or interfere with maintenance downwind.

West Virginia seeks to obfuscate the real issue before the Court by claiming EPA forced it to comply with a “presumption of national uniformity.” West Virginia’s characterization of EPA’s action is inconsistent with the record, EPA’s role under the statute, and West Virginia’s own representations to this Court. Indeed, West Virginia previously told this Court that EPA’s action was based on local and regional determinations specific to West Virginia. Opp’n to Mot. to Transfer, Doc. 15, at 13-15. While states have leeway to determine how they will meet the Act’s requirements, the statute’s bottom line is that states must adopt plans “prohibiting” their downwind pollution contributions, and Congress required EPA to independently evaluate whether a state’s plan does so—in a manner that treats all states consistently and fairly. That is what EPA did here.

This Court should therefore uphold the disapproval of West Virginia’s plan.

STATEMENT OF JURISDICTION

The Disapproval, entitled “Air Plan Disapprovals; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards,” 88

Fed. Reg. 9336 (Feb. 13, 2023) (“Disapproval”), constitutes final agency action subject to judicial review under 42 U.S.C. § 7607(b)(1).

STATEMENT OF THE ISSUES

1. Whether EPA lawfully and reasonably exercised its statutory authority, including considering the best available information on ozone-precursor emissions and ozone formation, in disapproving West Virginia’s state plan submission for failing to adequately establish that its emissions do not significantly contribute to nonattainment or interfere with maintenance of the 2015 federal ozone standard in other states.

2. Whether, if the Court determines that remand is appropriate, vacatur would be improper because EPA could correct any defects in the Disapproval on remand, and vacatur would disrupt implementation of EPA’s Good Neighbor Plan.

STATEMENT OF THE CASE

I. Factual Background

Ground-level ozone is harmful to public health and welfare. Ozone can “result in lung function impairment, chest pains, shortness of breath, coughing, nausea, throat irritation, increased susceptibility to respiratory infections and in high enough levels, death.” S. Rep. No. 101-228 at 6 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3789. It can also damage crops and forests. *Virginia v. United States*, 74 F.3d 517, 519 (4th Cir. 1996).

Ozone is formed by the interaction of precursors—nitrogen oxides (NO_x) and volatile organic compounds—in the presence of sunlight in the atmosphere. *Id.* “Owing to the ability of NO_x to move through the atmosphere, emissions of NO_x in one area can result in ozone non-attainment in a distant area.” *West Virginia v. EPA*, 362 F.3d 861, 865 (D.C. Cir. 2004).

II. Legal Background

The Clean Air Act, 42 U.S.C. §§ 7401-7671q, seeks “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare,” *id.* § 7401(b)(1), and to control air pollution through a system of shared federal and state responsibility, *see Gen. Motors Corp. v. United States*, 496 U.S. 530, 532 (1990). The Act, as amended, reflects “sharply increased federal authority” following “congressional dissatisfaction with the progress of existing air pollution programs and a determination to . . . guarantee the prompt attainment and maintenance of specified air quality standards.” *Train v. NRDC*, 421 U.S. 60, 64 (1975); *Union Elec. Co. v. EPA*, 427 U.S. 246, 249 (1976).

A. Ozone standards and nonattainment areas

The Act directs EPA to set national ambient air quality standards (“standards”) for specific pollutants, including ozone, at levels requisite to protect public health and welfare. 42 U.S.C. § 7409(b). Each standard establishes a pollutant’s permissible ambient concentration. *Id.* EPA most recently revised the

ozone standard in 2015, strengthening it to 70 parts per billion (“ppb”). 80 Fed. Reg. 65292 (Oct. 26, 2015) (“2015 ozone standard”).

Once EPA revises a standard, it must designate all areas of the country as being in “attainment” or “nonattainment” of that standard, or as “unclassifiable” if there is insufficient data for a designation. 42 U.S.C. § 7407(d). When EPA designates an area as being in nonattainment, that triggers statutory deadlines by which the area must come into attainment. *Id.* § 7511(a). Many states’ ozone nonattainment areas failed to meet the 2015 ozone standard by the first statutory deadline in 2021; therefore, these states must adopt stringent control requirements to come into attainment by the second deadline in 2024. 87 Fed. Reg. 60897 (Oct. 7, 2022); 42 U.S.C. § 7511a(b). Failure to reach attainment by that deadline would lead to even more rigorous statutory requirements. 42 U.S.C. § 7511a(c).

B. State implementation plans

Within three years of an air quality standard’s revision, all states must adopt state implementation plans that are adequate to implement, maintain, and enforce the relevant standard. *Id.* § 7410(a). While the Act places “primary responsibility for formulating pollution control strategies” on states, it contains “strict minimum compliance requirements” for attaining the air quality standards. *Union Elec.*, 427 U.S. at 256-57 (quoting *Train*, 421 U.S. at 91). If a state plan contains all required

components, EPA deems the plan complete and must independently evaluate the plan for compliance with the Act. 42 U.S.C. § 7410(k).

If EPA concludes a state plan complies with the Act and approves it, the plan becomes enforceable as a matter of federal law. *Id.* § 7413. If EPA determines that a state plan does not meet the Act’s requirements, the Agency must disapprove it. *Id.* § 7410(k)(2)-(4). In that case, EPA must promulgate a federal implementation plan. *Id.* § 7410(c)(1). EPA may do so any time within two years and need not “postpone its action even a single day.” *EME Homer*, 572 U.S. at 509.

C. The Good Neighbor Provision

Congress enacted the Good Neighbor Provision to hold upwind states accountable for their fair share of emissions reductions to help downwind states attain air quality standards and to ensure that those states do not bear the regulatory burden alone. 42 U.S.C. § 7410(a)(2)(D)(i)(I); *EME Homer*, 572 U.S. at 496-98; *Wisconsin v. EPA*, 938 F.3d 303, 314 (D.C. Cir. 2019). The Good Neighbor Provision is especially important for ozone, which travels great distances, creating “interwoven” linkages among states. *EME Homer*, 572 U.S. at 496-97; *West Virginia*, 362 F.3d at 865.

Once EPA promulgates or revises a standard, the Good Neighbor Provision requires states to submit plans that “prohibit,” through “adequate provisions,” in-

state emissions from “any source or other type of emissions activity” that “will” “contribute significantly to nonattainment” or “interfere with maintenance” of the standard in other states. 42 U.S.C. § 7410(a)(2)(D)(i)(I). The Act does not define “contribute significantly” or “interfere with maintenance”; however, it requires implementation of the Good Neighbor Provision “consistent with the provisions of” Title I of the Act, *id.* §§ 7401-7515. *Id.* § 7410(a)(2)(D)(i).

D. Past litigation related to Good Neighbor rules

“Over the past 50 years, Congress has addressed interstate air pollution several times and with increasing rigor.” *EME Homer*, 572 U.S. at 497. Notwithstanding Congress’s 1990 enactment of a more protective version of the Good Neighbor Provision, many states have repeatedly failed to address their Good Neighbor obligations, including for ozone, leading to successive rounds of rulemaking and judicial decisions.

Since 1998, for each of the three previous ozone standard revisions, EPA promulgated national rules defining and directly implementing Good Neighbor requirements for states that failed to submit adequate plans. Generally, these rules provided for emissions reductions from the highest emitters of ozone precursors, such as power plants. *See, e.g.*, 63 Fed. Reg. 57356 (Oct. 27, 1998) (1979 ozone standard); 70 Fed. Reg. 25162 (May 12, 2005) (1997 ozone standard); 76 Fed. Reg. 48208 (Aug. 8, 2011) (the “Cross-State Rule,” for the 1997 ozone standard);

81 Fed. Reg. 74504 (Oct. 26, 2016), *and* 86 Fed. Reg. 23054 (Apr. 30, 2021) (the “Update Rule” and “Revised Update Rule,” for the 2008 ozone standard).

The rules defining and implementing Good Neighbor obligations have been extensively litigated, leading to a well-settled body of law regarding EPA’s and states’ authorities. The resulting cases have clarified the meaning of the Good Neighbor Provision’s key terms, at times setting bounds on the scope of EPA’s authority or discretion and at other times holding that EPA must regulate more aggressively.

For example, in *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008), the D.C. Circuit held that states and EPA must align Good Neighbor obligations with the attainment dates faced by downwind areas. *Id.* at 911-12, 930. Further, the court held that EPA must ensure significant contribution to nonattainment or interference with maintenance is eliminated from each state. *Id.* at 920-921.

In 2014, in reviewing the Cross-State Rule, the Supreme Court held that, through the Good Neighbor Provision, Congress delegated to EPA the authority to determine what constitutes significant contribution to nonattainment or interference with maintenance, and Congress did not require EPA to define those obligations before acting on states’ plans. *EME Homer*, 572 U.S. at 513-20. The Court upheld as reasonable the 4-step framework EPA used to evaluate Good Neighbor obligations. *Id.* at 520.

EPA next addressed Good Neighbor obligations for the 2008 ozone standard of 75 ppb in the Update Rule, which contained partial federal plans for 22 states, including West Virginia. *See* 81 Fed. Reg. at 74504. The D.C. Circuit largely upheld the Update Rule but remanded without vacatur because, in issuing only a partial remedy that left some emissions unaddressed, the court found EPA failed to properly align upwind emission reductions with downwind attainment dates. *Wisconsin*, 938 F.3d at 312-13, 320. The D.C. Circuit rejected numerous arguments from upwind petitioners, including the argument “that an upwind State ‘contributes significantly’ to downwind nonattainment only when its emissions are the *sole cause* of downwind nonattainment.” *Id.* at 324.

Following *Wisconsin*, EPA was subject to citizen suit litigation under 42 U.S.C. § 7604(a) to complete its obligations for the 2008 ozone standard, resulting in a court-ordered deadline to resolve Good Neighbor obligations for 7 states, including West Virginia. *See New Jersey v. Wheeler*, 475 F. Supp. 3d 308 (S.D.N.Y. 2020). Throughout 2020 and 2021, EPA focused on this rulemaking obligation, resulting in the Revised Update Rule, fully resolving the Good Neighbor obligations of 21 states for the 2008 ozone standard. *See* 86 Fed. Reg. at 23054. The Revised Update Rule established a more stringent emissions control program for West Virginia and 11 other states than the Update Rule. *See id.* It was upheld in *Midwest Ozone Group v. EPA*, 61 F.4th 187 (D.C. Cir. 2023).

E. EPA’s 4-step framework for evaluating Good Neighbor obligations

For decades, EPA has used a 4-step framework to evaluate state plans and formulate federal plans under the Good Neighbor Provision. *See* Response to Comments (“RTC”) at 431 (JA421). This framework gives consistent meaning to critical statutory terms in the provision, *see id.* (JA421); 42 U.S.C.

§ 7410(a)(2)(D)(i)(I), and “provide[s] a reasonable organization to the analysis of the complex air quality challenge of interstate ozone transport,” Disapproval at 9338 (JA515). Courts, including the Supreme Court, have upheld the framework as “permissible, workable, and equitable.” *EME Homer*, 572 U.S. at 524; *Midwest Ozone Grp.*, 61 F.4th at 189 n.1.

Under this framework, a regulator would take the following steps:

Step 1: Identify downwind “nonattainment” and “maintenance” receptors, which are monitoring sites that are projected to, respectively, not attain or struggle to maintain the air quality standard. Disapproval at 9341-42 (JA518-19); 42 U.S.C. § 7410(a)(2)(D)(i)(I).

Step 2: Determine whether upwind-state emissions “contribute” to those downwind receptors. An upwind state “contributes” if its share of pollution to a downwind receptor is at or above a “contribution threshold.” EPA has consistently considered states “linked” when an upwind state’s emissions contribute 1% or more of the standard to a downwind state’s receptor. Disapproval at 9371 (JA548).

For the 2015 ozone standard of 70 ppb, a 1% contribution threshold is 0.70 ppb. *Id.* at 9342, 9371, 9374 (JA519, 548, 551).

Step 3: Determine the “amount[]” of contribution that is “significant[]” or “interfere[s] with maintenance” using a multifactor analysis of potential emissions-control strategies for upwind-state sources. *Id.* at 9342-43 (JA519-20). Because Step 2 identifies “those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems,” Step 3 allocates each contributing upwind state’s fair share of responsibility through a multifactor analysis of potential emissions control strategies for “sources” in states linked at Step 2. *Id.* at 9342 (JA519); *EME Homer*, 572 U.S. at 519. Such factors include consideration of the cost and air quality impact of additional control options. *See Disapproval* at 9342-43, 9375-76 (JA519-20, JA552-53).

Step 4: Ensure that the plan “contain[s] adequate provisions” “prohibiting” such emissions. 42 U.S.C. § 7410(a)(2)(D)(i). The regulator would develop strategies to achieve the emissions reductions found to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance. *Wisconsin*, 938 F.3d at 310-11.

While many states choose to generally follow this framework, EPA does not mandate that states do so. *Disapproval* at 9338 (JA515). Additionally, the

framework “allow[s] for some methodological variation” within each step. *Id.*

(JA515). Regardless of the approach states take, the Act obligates EPA to evaluate whether each submission contains “adequate provisions” to comply with the Good Neighbor Provision. 42 U.S.C. § 7410(a)(2)(D)(i)(I), (k)(3). Given ozone pollution’s interstate nature, EPA evaluates each state plan submission “with an eye to ensuring national consistency and avoiding . . . inequitable results.” Disapproval at 9342, 9381 (JA519, JA558).

III. Procedural Background

A. Modeling and memoranda for the 2015 ozone standards

EPA uses photochemical modeling to identify receptors in Step 1 and upwind states’ and other sources’ contributions to pollution at those receptors in Step 2.¹ *See id.* at 9343-44 (JA520-21). The modeling for Steps 1 and 2 is based on a platform that incorporates a base year (*i.e.*, historical year) of meteorological data and emissions inventories throughout the country for that base year and changes in ozone precursor emissions expected to occur by the analytic year (*i.e.*, a year associated with downwind areas’ attainment deadline). *Id.* at 9340-41, 9344-48 (JA517-18, JA521-25); 2016v3 Air Quality Modeling (“AQM”) Technical Support

¹ Photochemical modeling is “computer air quality modeling that evaluates how emissions from various sources combine in the atmosphere and predicts the concentration of pollutants that likely will result.” *1000 Friends of Md. v. Browner*, 265 F.3d 216, 220 n.4 (4th Cir. 2001).

Document (“TSD”) at 4-9 (JA432-37); *see also North Carolina*, 531 F.3d at 911-12, 930. EPA has released iterations of its modeling based on two platforms, the 2011-based modeling and the 2016-based modeling.

The 2011-based modeling used a 2011 base year and a 2023 analytic year. *See* Disapproval at 9338 (JA515). In March 2018, EPA issued a memorandum (“Modeling Memo”) providing the 2011-based modeling results identifying “potential” receptors for the 2015 ozone standard and upwind states’ contributions to those receptors, to “assist[]” states in developing their Good Neighbor submissions for the 2015 ozone standard. Modeling Memo at 2-6 (JA248-52); Disapproval at 9338-39 (JA515-16). EPA stated that the information included in the Modeling Memo “[wa]s not a final determination regarding states’ obligations under the good neighbor provision,” and “[a]ny such determination would be made through notice-and-comment rulemaking.” Modeling Memo at 2 (JA248).

Attachment A to EPA’s Modeling Memo listed potential ideas from outside stakeholders for addressing Good Neighbor obligations, which EPA sought feedback on and did not expressly endorse. Modeling Memo, Att. A (JA254) (“EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.”). Attachment A also provided EPA’s own “guiding principles” for how states and EPA should approach their

obligations, which emphasized regional consistency, collaboration in addressing shared ozone problems, and compliance with judicial precedent. *Id.* (JA254).

EPA periodically updates its photochemical modeling to ensure it applies an appropriately recent base year. *See* Modeling Memo at 4 (JA250). In collaboration with states (including West Virginia), multi-jurisdictional organizations, and local agencies, EPA updated its 2011-based modeling platform with updated emission inventories and other data to a 2016 base year. *See* Disapproval at 9339 (JA516); 2016v1 Emissions Inventory TSD at 23, 52, 54 (JA303, JA304, JA305) (incorporating changes based on information from West Virginia). EPA released this “2016v1” modeling in October 2020. *See* Disapproval at 9339 (JA516); 86 Fed. Reg. at 23078-82.

Based on further comments and stakeholder engagement, EPA updated the emissions inventories to incorporate improved data, including emissions reductions from the Revised Update Rule, and other feedback. EPA sought comment on the resulting “2016v2” modeling in its proposed actions on states’ Good Neighbor submissions for the 2015 ozone standard. *See* Disapproval at 9339, 9343-44 (JA516, JA520-21).

After considering public comments on the 2016v2 modeling, including from upwind states, EPA developed the “2016v3” modeling, which it incorporated into the final Disapproval. Disapproval at 9339 (JA516); *see generally* 2016v3 AQM

TSD (JA429-512). EPA determined that the 2016v3 modeling is “state-of-the-science” and that it performed within acceptable model performance criteria. Disapproval at 9344-45, 9366 (JA521-22, JA543).

Agreeing with commenters that many ozone monitors in 2021 and 2022 recorded ozone levels exceeding the 2015 ozone standard, EPA also identified “violating monitors” as another class of receptors that would struggle to maintain the 2015 ozone standard in 2023. *Id.* at 9349 (JA526). Many of the states subject to the Disapproval, including West Virginia, were projected to be linked to violating monitors in 2023, in addition to those receptors identified in the 2016v3 modeling. *Id.* (JA526).

West Virginia’s submission relied not on EPA’s modeling, but on photochemical modeling prepared by Alpine Geophysics (“Alpine”). *See* 87 Fed. Reg. 9516, 9522 (Feb. 22, 2022) (“Proposal”) (JA306, JA312). The Alpine modeling also used a 2023 analytic year, and it demonstrated West Virginia’s linkages to four receptors in three nonattainment areas: New York-Northern New Jersey-Long Island, Philadelphia-Wilmington-Atlantic City, and Baltimore. Proposal at 9523 & tbl.2 (JA313).

Under every iteration of modeling, West Virginia was linked above 1% of the 2015 ozone standard to multiple (often identical) downwind receptors. For example, West Virginia was linked to receptors in the New York-Northern New

Jersey-Long Island Nonattainment Area in all iterations of modeling, including West Virginia's chosen Alpine modeling. *See, e.g.*, Proposal at 9523 (JA313); Modeling Memo at C-3 (JA262) (linked to the Richmond, New York receptor under the Alpine and 2011 modeling); Modeling Memo at C-3 (JA262), Proposal at 9525 (JA315), *and* 2016v3 AQM TSD at C-3 (JA500) (linked to the Fairfield-Stratford, Connecticut and Fairfield-Westport, Connecticut receptors in EPA's 2011, 2016v2, and 2016v3 modeling).

B. West Virginia's Submission

On February 4, 2019, West Virginia submitted a plan to address its 2015 ozone standard Good Neighbor obligations ("Submission"). Proposal at 9522 (JA312). The Submission followed EPA's four-step framework described *supra*, Background II.E. Submission at 21-50 (JA063-92).

At Steps 1 and 2, West Virginia concluded it was "linked" to downwind states based on the Alpine modeling, which showed that West Virginia would contribute more than 0.70 ppb (1% of the 2015 ozone standard) to ozone pollution at four receptors. *Id.* at 13-14, 21-23 (JA055-56, JA063-65); Proposal at 9523 tbl.2 (JA313).

At Step 3, West Virginia reviewed the six highest-emitting categories of sources in the state and concluded its sources were adequately controlled by existing emissions reduction measures without analyzing further control

opportunities. Submission at 23-24 (JA065-66). Specifically, West Virginia asserted that the power plant trading program in the Update Rule (for the 2008 ozone standard) was sufficient to satisfy the State's Good Neighbor obligations for the more stringent 2015 ozone standard. *Id.* at 27-30 (JA 069-72). Similarly, West Virginia identified existing State permitting programs for petroleum sources and federal regulations for motor vehicles, without considering additional controls for either category. *Id.* at 24-25 (JA066-67). West Virginia also pointed to sources that had or would shut down or were otherwise expected to decrease emissions in the future to conclude that the State had already taken all reasonable control measures. *Id.* at 27-32 (JA069-74).

West Virginia separately attempted to make use of stakeholder ideas from Attachment A to the Modeling Memo. First, West Virginia claimed back trajectories (estimations of the likely path a parcel of air traveled over time) indicated that air at linked receptors on the majority of high-ozone days in 2015-2017 had not come from West Virginia. *Id.* at 14-17 (JA056-59). Second, West Virginia asserted that linked receptors' high ozone levels were due largely to downwind receptors' proximity to major cities and Interstate 95. *Id.* at 17-20 (JA059-62). Third, West Virginia claimed that one linked receptor would attain the 2015 ozone standard in 2023 if not for international emissions. *Id.* at 20-21 (JA062-63).

At Step 4, West Virginia listed existing control measures and concluded it need not do anything further to satisfy its Good Neighbor obligations for the 2015 ozone standard. *Id.* at 36-50 (JA078-92).

C. EPA's Disapproval

EPA's assessment of West Virginia's and other states' Good Neighbor submissions for the 2015 ozone standard was delayed while EPA addressed the remand of the Update Rule in *Wisconsin*, 938 F.3d at 336. *See* Disapproval at 9338 n.11 (JA515). But in February 2022, EPA proposed disapproving West Virginia's Submission. Proposal at 9524 (JA314). EPA finalized the Proposal on January 31, 2023, as part of its disapproval of 21 states' 2015 ozone standard Good Neighbor submissions. Disapproval at 9336, 9360 (JA513, JA537).

For Steps 1 and 2, EPA agreed with West Virginia that Alpine's modeling showed the State linked to downwind receptors in 2023. Proposal at 9525 (JA315). EPA's 2016v2 and 2016v3 modeling corroborated this conclusion, identifying West Virginia as linked to receptors in 2023 in an overlapping nonattainment area to Alpine's modeling. Disapproval at 9360 (JA537); Proposal at 9523 tbl.2, 9525 tbl.3 (JA313, JA315). EPA explained that the identification of linkages in multiple modeling platforms, even if to different receptors, "indicates that West Virginia's emissions have been substantial enough to generate linkages at Steps 1 and 2 to some set of downwind receptors, under varying assumptions and meteorological

conditions,” which provided “further evidence” that West Virginia contributes to interstate ozone pollution problems. Proposal at 9525 (JA315); *see also* Disapproval at 9366 (JA543).

EPA found that West Virginia did not conduct its own Step 3 analysis adequately because the State did not support its conclusion that its emissions do not significantly contribute to nonattainment in or interfere with maintenance of the 2015 ozone standard in other states. Disapproval at 9360 (JA537). EPA explained that West Virginia’s reliance on existing and planned emissions measures—the Update Rule for the 2008 ozone standard, state permitting programs for petroleum sources, federal mobile-source regulations, and planned facility shutdowns—to avoid implementing further emissions reductions was unreasonable; simply pointing to current controls or permitting programs without further analysis was not sufficient to conclude that all of the remaining emissions were insignificant. Proposal at 9529 (JA319); *see also* RTC at 329-33 (JA400-04). EPA explained that its modeling generally accounted for the existing and planned emissions reductions that West Virginia had identified but still showed West Virginia to be contributing to downwind ozone problems in 2023. Proposal at 9529-32 (JA319-22); *see also* Disapproval at 9345-48 (JA522-25).

EPA also concluded that West Virginia’s reliance on downwind conditions and back trajectories to excuse its own contribution was legally and technically

flawed. Disapproval at 9360 (JA537); Proposal at 9526-27 (JA316-17). For example, EPA explained that West Virginia’s attempt to minimize its role in downwind ozone problems based on “downwind air quality context” (specifically, receptors’ proximity to major cities and Interstate 95, as well as contribution from international emissions) was legally flawed, because the Good Neighbor Provision is a contribution standard, not a but-for causation standard. EPA also noted that West Virginia’s back-trajectory analysis confirmed that West Virginia is upwind of downwind ozone problems. Proposal at 9526-27 (JA316-17); Disapproval at 9360, 9377-78 (JA537, JA554-55) (citing *Wisconsin*, 938 F.3d at 323-24); RTC at 476 (JA428).

The Disapproval obligated EPA to promulgate federal plans for the covered states, including West Virginia, which it did on March 15, 2023, in a rule called the “Good Neighbor Plan,” 88 Fed. Reg. 36654 (June 5, 2023). That rule is not before the Court in this litigation.

D. Petitions for Review

West Virginia and other states and industry groups have challenged the Disapproval in eight circuit courts. A motions panel of this Court stayed the Disapproval as to West Virginia pending judicial review and denied EPA’s motion to transfer. Doc. 51. *Contra Oklahoma v. EPA*, 93 F.4th 1262 (10th Cir. 2024) (transferring to the D.C. Circuit other petitions for review of EPA’s Disapproval).

In response, EPA announced that it will not enforce the Good Neighbor Plan in West Virginia and published a rule preserving the status quo while this case proceeds. 88 Fed. Reg. 67102 (Sept. 29, 2023).

SUMMARY OF ARGUMENT

1. The Court should deny West Virginia’s petition because EPA lawfully disapproved the State’s Submission.

A. Under the Act’s cooperative-federalism framework, EPA must exercise an oversight role in evaluating all state submissions to ensure they meet the Act’s requirements. West Virginia’s cramped interpretations of both EPA’s review authority and the Good Neighbor Provision diverge from the history, text, and structure of the Act. It also diverges from the standard of review under which this Court evaluates EPA’s action, decades of binding case law in the Supreme Court and this Court, other relevant case law, and EPA’s longstanding approach to evaluating SIP submissions for compliance with the Act.

B. EPA lawfully and reasonably disapproved West Virginia’s Submission based on the entire record. The Good Neighbor Provision requires each state to eliminate emissions that “will” “contribute significantly to nonattainment” or “interfere with maintenance” of the air quality standard in other states. The record here, including West Virginia’s chosen modeling and up-to-date data available at the time of EPA’s evaluation of West Virginia’s Submission,

showed that the State is projected to contribute to downwind states' ozone problems. However, West Virginia concluded based on faulty reasoning that it need not consider any additional emissions control measures.

West Virginia listed on-the-books control measures and plant shutdowns without explaining how these eliminated the State's "significant contribution" to downwind exceedances of newer, more stringent standards. West Virginia's consideration of "downwind context" and back trajectories was also legally and technically flawed. Specifically, West Virginia is not legally absolved of its Good Neighbor obligations merely because sources in other states also contribute to the same downwind receptors, and West Virginia's back-trajectory analysis confirmed that West Virginia is upwind of downwind ozone problems. Because West Virginia failed to support its conclusion that it has no Good Neighbor obligations for the 2015 ozone standard, EPA lawfully disapproved its plan.

C. West Virginia argues that EPA disapproved its Submission for reasons other than the Submission's clear legal and technical flaws—claiming EPA's review applied atextual presumptions and requirements—but those arguments lack merit. EPA acted within its statutory authority (indeed, its statutory *obligation*) in evaluating West Virginia's Submission for compliance with the Good Neighbor Provision. In doing so, it appropriately considered the need for

consistency among states in addressing interstate ozone pollution and found multiple flaws warranting disapproval.

D. The 2016-based modeling was not dispositive to EPA's disapproval of West Virginia's Submission. EPA did not find fault with West Virginia's use of the Alpine modeling, and that modeling showed West Virginia was linked to receptors in three nonattainment areas in 2023. Therefore, the Court need not address West Virginia's arguments regarding modeling.

In any event, West Virginia's attacks on EPA's consideration of updated modeling lack merit. Nothing in the Act's text cabins EPA's obligation to review state submissions for compliance with the Act's obligations to a certain dataset. EPA acted consistently with its statutory authority and its longstanding policy of considering the best available information when evaluating states' Good Neighbor submissions. West Virginia has no grounds to challenge the modeling based on EPA's delay because even if EPA had acted timely, West Virginia would be in the same situation it is in now. And if EPA had considered only the Alpine modeling, EPA would have disapproved West Virginia's submission for the reasons stated above.

2. If the Court finds any error in the Disapproval, the appropriate remedy is remand without vacatur so that EPA may correct any identified deficiencies on remand while avoiding the disruptive consequences of vacatur.

STANDARD OF REVIEW

The Administrative Procedure Act's ("APA's") "highly deferential" standard of review applies. *Ergon-West Virginia, Inc. v. EPA*, 980 F.3d 403, 410 (4th Cir. 2020). The Court may set aside the Disapproval only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Citizens Against Refinery's Effects, Inc. v. EPA*, 643 F.2d 178, 181 (4th Cir. 1981). The Court decides if an agency's decision was arbitrary or capricious by determining if there has been "a clear error of judgment." *1000 Friends*, 265 F.3d at 235 (citation omitted). In determining whether there has been a clear error, the court may not "substitute [its own] judgment for that of the agency." *Tyson v. U.S. Dep't of Agric.*, 360 F. App'x 451, 455 (4th Cir. 2010). When an agency "is making predictions, within its area of special expertise, at the frontiers of science . . . as opposed to simple findings of fact, a reviewing court must generally be at its most deferential." *1000 Friends*, 265 F.3d at 236 (quoting *Balt. Gas & Elec. v. NRDC*, 462 U.S. 87, 103 (1983)). While an "agency must examine the relevant data and articulate a satisfactory explanation for its action[,] including a rational connection between the facts found and the choice made," this Court will "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." *Id.* at 238 (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

ARGUMENT

I. EPA acted within its Clean Air Act authority.

According to West Virginia, EPA cannot second guess a state's assertion that its plan meets the Act's requirements. Br. 28-29. West Virginia's argument misconstrues the respective roles of EPA and states as set forth by Congress in the Act. The Act tasks EPA with approving a state's submission *only if* it meets applicable requirements. 42 U.S.C. § 7410(k)(3). The Good Neighbor Provision requires each state to prohibit emissions that significantly contribute to nonattainment, or interfere with maintenance, of air quality standards in other states. *Id.* § 7410(a)(2)(D)(i)(I). Whether West Virginia correctly determined that its emissions do not significantly contribute to nonattainment or interfere with maintenance of the ozone standard in downwind states is squarely within EPA's statutory duty to assess. West Virginia's assessment of its Good Neighbor obligations was legally and technically flawed, and EPA lawfully disapproved the State's Submission on its own terms.

A. Congress obligated EPA to ensure state submissions comply with the Good Neighbor Provision.

The Act's plain terms direct EPA to ensure that a state plan "meets all of the applicable requirements" of the Act. *Id.* § 7410(k)(3). West Virginia's argument that EPA must accept its Submission's determinations without engaging in a substantive review would render this requirement meaningless.

The Act clearly defines the respective roles of EPA and states. Congress required states to “adopt and submit” plans that provide for the “implementation, maintenance, and enforcement” of the ozone standards. *Id.* § 7410(a)(1). Congress charged EPA with the critical oversight role of ensuring that state plans meet “all of the applicable requirements” of the Act, allowing approval only if the submissions meet such requirements. *Id.* § 7410(c)(1), (k)(2)-(3); *see also Env’t Comm. of Fla. Elec. Power Coordinating Grp., Inc. v. EPA*, 94 F.4th 77, 84 (D.C. Cir. 2024) (“Before a [state plan] can go into effect, EPA also makes sure that it complies with the specific requirements that the Clean Air Act imposes for [plans].”); *Virginia v. Browner*, 80 F.3d 869, 883 (4th Cir. 1996) (concluding “that EPA correctly disapproved Virginia’s proposed state permit program because it did not satisfy the provisions of the Clean Air Act”).² “Congress intended that EPA, not the states alone, ultimately ensure that state determinations . . . comply with the Act, and so authorized EPA to disapprove state ‘analysis that is neither reasoned nor moored to the [Act’s] provisions.’” *Arizona ex rel. Darwin v. EPA*, 815 F.3d 519, 532 (9th Cir. 2016) (quoting *North Dakota v. EPA*, 730 F.3d 750, 761 (8th

² West Virginia cites *Virginia* in support of its argument, Br. 30, 37, 49, but ignores that, in that case, this Court upheld EPA’s disapproval of a proposed state program that failed to comply with the Act, supporting EPA’s exercise of its statutory authority here.

Cir. 2013)) (rejecting argument that EPA bears the burden of proving a state’s determinations are unreasonable).

West Virginia’s view that EPA must defer to states’ substantive conclusions about compliance with the Act’s requirements, such as the Good Neighbor Provision, negates Congress’s direction that EPA determine whether state plans meet the Act’s requirements. Indeed, the Act distinguishes between EPA’s substantive review obligations under Section 7410(k)(3) and EPA’s more perfunctory responsibility of assessing a state plan for administrative completeness under Section 7410(k)(1)(B). West Virginia’s reading collapses these statutory obligations, rendering the separate statutory provisions duplicative and leaving EPA in a box-checking role. *See Kungys v. United States*, 485 U.S. 759, 778 (1988) (rejecting a construction of a statute that would “violate[] the cardinal rule of statutory interpretation that no provision should be construed to be entirely redundant”).

Given the clear statutory language, West Virginia cannot rely on *Alaska Department of Environmental Conservation v. EPA*, 540 U.S. 461 (2004) (“*ADEC*”), to reduce EPA’s role in the state plan context. Br. 31-33. *ADEC* concerned EPA’s review of a state’s “best available control technology” (“BACT”) determination under an EPA-approved permitting program. 540 U.S. at 484. Under the program at issue there, Congress delegated to “the permitting authority” the

ability to determine BACT. 42 U.S.C. § 7479(3). Even in that context, *ADEC* recognized that EPA’s oversight authority includes ensuring the permitting authority’s BACT determination is “reasonably moored to the Act’s provisions.” 540 U.S. at 485. Here, in the Good Neighbor Provision context, Congress tasked EPA directly with the duty to determine a state plan’s adequacy, without deference to any other body. 42 U.S.C. § 7410(k)(3).

West Virginia’s assertion that EPA must defer to *any* “reasoned analysis,” Br. 31, thus misses the mark. While states have discretion in formulating their plans, that does not mean EPA must (or even can) defer to West Virginia’s determination that its Submission complies with the Act. *See Arizona*, 815 F.3d at 532. EPA’s own determination in that regard involves the technical assessment of emissions, air quality, and monitoring data that is subject to deferential, record-based judicial review. *See 1000 Friends*, 265 F.3d at 236-37 (quoting *Balt. Gas & Elec.*, 462 U.S. at 103); *see also, e.g., Oklahoma v. EPA*, 723 F.3d 1201, 1217 (10th Cir. 2013) (“Given that we must defer to the EPA’s technical judgments, we cannot say the EPA acted arbitrarily on the basis of the record before us.”). These principles apply equally in the Good Neighbor context. *See Westar Energy, Inc. v. EPA*, 608 F. App’x 1, 3 (D.C. Cir. 2015) (upholding Good Neighbor state plan disapproval and noting that EPA’s handling of “technical matters within its area of expertise warrants particular deference”).

West Virginia fundamentally misunderstands what it means for states to have the “primary responsibility” under the Act to develop their state plans. Br. 29. States surely enjoy wide discretion to formulate regulatory controls to include in their plans, 42 U.S.C. § 7410(a)(2)(A), meaning they can adopt whatever enforceable control measures they prefer that will attain and maintain air quality standards, so long as they meet applicable requirements, *see Train*, 421 U.S. at 79. Here, however, West Virginia did not justify its conclusion that none of its ongoing emissions significantly contribute to ozone problems downwind. Disapproval at 9343 n.43 (JA520). Whether a plan will adequately prohibit emissions that significantly contribute to nonattainment or interfere with maintenance in downwind states is a question at the heart of EPA’s role and responsibilities in overseeing implementation of the air quality standards. *See Wisconsin*, 938 F.3d at 312, 316.

For this reason, the Supreme Court has recognized EPA’s authority and duty to substantively review state plans. As the Supreme Court observed when first interpreting the Act’s provisions governing state plans, the Act obligates EPA to evaluate state plans for compliance with the Act’s requirements and to assess whether states’ control measures are adequate to attain the relevant air quality standards or achieve other real-world results required by the Act. *Union Elec.*, 427 U.S. at 249 (citing *Train*, 421 U.S. at 64); *cf. ADEC*, 540 U.S. at 490 (“We fail to

see why Congress, having expressly endorsed an expansive surveillance role for EPA . . . would then implicitly preclude the Agency from verifying substantive compliance . . . and, instead, limit EPA’s superintendence to the insubstantial question whether the state permitting authority had uttered the key words[.]”).

EPA’s failure to do so would be unlawful. *See Sierra Club v. EPA*, 972 F.3d 290, 301-03 (3d Cir. 2020) (faulting EPA for approving state plan submission that lacked technical justification).

Indeed, circuit courts across the country have repeatedly affirmed that the Act unambiguously grants EPA the authority to substantively review state plans for compliance with the Act. *See, e.g., BCCA Appeal Grp. v. EPA*, 355 F.3d 817, 832-34 (5th Cir. 2003) (deferring to EPA’s evaluation of Texas’s photochemical modeling and approval of Texas’s submission because EPA provided a reasonable explanation for its reliance on the model); *North Dakota*, 730 F.3d at 760-61 (deferring to EPA’s determination that North Dakota’s submission contained methodological flaws and upholding EPA’s disapproval of that submission); *Ass’n of Irrigated Residents v. EPA*, 686 F.3d 668, 677 (9th Cir. 2012) (highlighting EPA’s “affirmative duty” to ensure state plans demonstrate attainment); *Mich. Dep’t of Env’t Quality v. Browner*, 230 F.3d 181, 185-86 (6th Cir. 2000) (deferring to EPA’s determination that Michigan’s submission failed to offer analysis showing that Michigan will not interfere with the attainment and maintenance of

the standards); *HEAL Utah v. EPA*, 77 F.4th 1275, 1280 (10th Cir. 2023)

(explaining that “EPA must reject a [state plan] that does not satisfy the [Act]”).³

In sum, the plain text of the Act and binding precedent require EPA to ensure that state plans contain adequate provisions to provide for attainment and maintenance of air quality standards. 42 U.S.C. § 7410(a), (k). EPA therefore acts within Congress’s clear delegation of authority when it disapproves a submission, like West Virginia’s, because it does not meet the Good Neighbor Provision’s requirements.

B. EPA reasonably disapproved West Virginia’s Submission.

EPA’s disapproval of West Virginia’s Submission was lawful and reasonable. West Virginia’s own modeling recognized that the State’s emissions contribute to multiple downwind receptors that would struggle to attain the 2015 ozone standard, a fact confirmed by every round of EPA’s own modeling. West Virginia claimed that it was already doing enough to control its emissions, but EPA identified flaws with each of the State’s arguments.

EPA explained that merely listing current controls did not support the State’s conclusion that *additional* cost-effective controls were not available. Disapproval

³ West Virginia repeatedly cites *Texas v. EPA*, 829 F.3d 405 (5th Cir. 2016), and *Texas v. EPA*, No. 23-60069, 2023 U.S. App. LEXIS 13898 (5th Cir. May 1, 2023), to support its arguments. Br. 30, 33, 36, 38. But those out-of-circuit orders are interlocutory outliers among Supreme Court and other circuits’ decisions on these topics.

at 9360 (JA537); Proposal at 9528-31 (JA318-321). EPA also concluded that West Virginia's arguments regarding air quality conditions downwind and back trajectories were not legally or technically justified. Disapproval at 9360 (JA537); Proposal at 9528-31 (JA318-21).

For these reasons, EPA reasonably found West Virginia's Submission deficient on its own terms, warranting disapproval. Disapproval at 9360 (JA537). That finding is entitled to deference.

1. West Virginia's recitation of existing emissions controls did not demonstrate compliance with the Good Neighbor Provision for the 2015 ozone standard.

West Virginia's Step 3 analysis listed on-the-books controls—EPA's rules for the 2008 ozone standard, existing and expected facility retirements, and other federal regulations and state permitting programs—to support its conclusion that it does not significantly contribute to downwind air quality problems. *See* Submission at 23-35 (JA065-77); Br. 41-42. As EPA explained in disapproving West Virginia's Submission, those recitations did not establish the State's compliance with the Good Neighbor Provision.

As an initial matter, the effects of existing control measures generally were already captured in West Virginia's Alpine modeling. Proposal at 9522, 9528-31 (JA312, JA318-21). Despite those controls, West Virginia identified itself as contributing to downwind nonattainment. *Id.* at 9523 (JA313). For this reason,

West Virginia's Step 3 analysis should have considered *additional* control options. Disapproval at 9375 (JA552). As EPA explained, merely listing existing controls does not provide "a meaningful analysis of what other potential controls may be necessary to achieve NO_x emission reductions from these sources for the 2015 ozone [standard]." Proposal at 9529 (JA319); *see also* Disapproval at 9375-76 (JA552-53). To the extent West Virginia sought to rely on emissions reductions it claimed occurred after its modeling or those that would be forthcoming, the State failed to include the measures in its Submission for EPA to make federally enforceable. Proposal at 9531 (JA321); Disapproval at 9343 (JA520). And regardless, EPA's modeling captured the most up-to-date changes in the State's emissions inventory and confirmed West Virginia is still contributing to downwind nonattainment. Disapproval at 9360 (JA537).

West Virginia's contention that the State had already implemented all cost-effective controls falls flat. Br. 41-42; Submission at 25, 28-31 (JA067, JA070-73). West Virginia's modeling showed that the State contributes emissions to multiple downwind areas that are not meeting or maintaining the 2015 ozone standard. Simply gesturing at emissions controls designed to meet the less stringent 2008 standard or to comply with minimum requirements under other Clean Air Act programs is logically incoherent.

As EPA explained, the cost-effectiveness determination in EPA's prior federal plan for the 2008 ozone standard (the Update Rule) was based on a partial assessment of the appropriate stringency of Good Neighbor obligations for the less protective 2008 ozone standard. But "because the 2015 [ozone standard] is a . . . more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this [standard] to reflect higher marginal control costs." Proposal at 9531 (JA321); *see also* Disapproval at 9360 (JA537); RTC at 315 (JA397). In fact, EPA observed that all states in the Disapproval had additional emissions reductions available based on its analysis in the proposed Good Neighbor Plan. RTC at 329 (JA400). In the Good Neighbor Plan, EPA found sources in West Virginia could cost-effectively reduce their ozone emissions by roughly 25 percent. 88 Fed. Reg. at 36738-39.

EPA also explained why West Virginia could not rely on state permitting programs and federal regulations of mobile sources to absolve itself of its Good Neighbor requirements. *Contra* Br. 42; Submission at 25 (JA067). West Virginia's Submission ignored important distinctions between the Act's permitting program requirements and the State's Good Neighbor obligations. As EPA explained, unlike the Good Neighbor Provision's requirements, permitting programs generally do not focus on air quality effects in other states. RTC at 330 (JA401); Proposal at 9529 (JA319). Additionally, permitting analysis is done at the time a new source is

constructed, so existing sources may have been permitted decades ago under less protective air quality standards and less effective technologies. RTC at 330 (JA401); Proposal at 9529 (JA319). Permitting programs, which every state has, are not themselves sufficient to meet the Good Neighbor Provision's separate requirements. RTC at 330 (JA401); Proposal at 9529 (JA319).

And West Virginia incorrectly argues it can do nothing to reduce mobile source emissions in the State. Br. 41-42. As EPA explained, the State "has the authority to undertake any number of measures to reduce emissions from mobile sources," yet West Virginia did not consider those options. Proposal at 9528 (JA318) (citing 42 U.S.C. § 7511a(b)(3), (b)(4), (c)(3)-(5), (d)(1), and (e)(3)-(4)); *see also* Disapproval at 9377-78 (JA554-55).

For each of these reasons, West Virginia's argument that no cost-effective controls are available in the State was not supported.

2. EPA reasonably concluded that West Virginia's consideration of locality-specific factors was flawed.

Each of West Virginia's technical arguments regarding other contributing sources and back trajectories, Submission at 14-21 (JA056-63), was legally and technically flawed, Proposal at 9526-27 (JA316-17); Disapproval at 9360

(JA537).⁴ Thus, contrary to West Virginia’s assertion, Br. 40-41, these arguments did not suggest West Virginia’s contributions were too small to significantly contribute to other states. *See* RTC at 319-20 (JA398-99).

a. West Virginia’s blame of other contributing sources is premised on a causation standard that is inconsistent with the Act.

West Virginia incorrectly suggests its own emissions’ impact on downwind receptors should be excused because other sources also contribute to the same receptors. Specifically, West Virginia claims that a high percentage of the ozone levels in the vicinity of the receptors to which West Virginia was linked in the Alpine modeling resulted from international emissions and mobile sources in other states. Br. 40-41; *see also* Submission at 17-21 (JA059-63). In disapproving West Virginia’s Submission, EPA explained why, as a legal matter, the mere fact that other sources also contribute to the ozone levels at receptors does not relieve an upwind state of its Good Neighbor obligations. Disapproval at 9378 (JA555).

The Good Neighbor Provision requires “[e]ach” state to eliminate its own significant contribution to downwind nonattainment. 42 U.S.C. § 7410(a)(2),

⁴ Contrary to West Virginia’s assertion, Br. 10, Attachment A was not EPA guidance but merely a list of unvetted stakeholder ideas, Disapproval at 9369-70 (JA546-47). Moreover, Attachment A provided a set of “guiding principles” for how states and EPA should approach their obligations, which emphasized regional consistency, collaboration, and compliance with judicial precedent. *Id.* (546-547). West Virginia did not abide by these principles.

(a)(2)(D)(i). Furthermore, the Good Neighbor Provision is a contribution standard, not a but-for causation standard. *Wisconsin*, 938 F.3d at 323-25 (rejecting argument “that an upwind State ‘contributes significantly’ to downwind nonattainment only when its emissions are the *sole cause* of downwind nonattainment”); *North Carolina*, 531 F.3d at 920-21 (requiring EPA to ensure significant contribution to nonattainment or interference with maintenance is eliminated from each state).

Ozone presents a “collective contribution” problem, in which many emitters over a wide area contribute to elevated ozone levels downwind. Disapproval at 9342 (JA519). The Fairfield-Stratford, Connecticut receptor (No. 90013007) is a textbook example: 54.9% of the ozone there is attributable to upwind states, with 11 states each contributing 0.70 ppb or more: Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, New York, Ohio, Pennsylvania, Virginia, and West Virginia. 2016v3 AQM TSD at D-2, E-2 (JA505, JA509). Because many smaller upwind contributions combine to create downwind ozone problems, emissions reductions from a broad, multistate area are needed to address the collective contribution problem. Disapproval at 9342 (JA519). Yet not one of these states concluded they should reduce their emissions to help the Fairfield-Stratford receptor attain the 2015 ozone standard. *Id.* at 9356-61 (JA533-38).

In short, international and mobile source emissions do not relieve West Virginia of its own Good Neighbor obligations. *See* Disapproval at 9377-78 (JA554-55); RTC at 476 (JA428).

b. West Virginia's back-trajectory analysis confirmed the modeling showing West Virginia contributes to downwind ozone problems.

West Virginia performed back trajectories for a three-year period (2015-2017). Submission at 15 (JA057). West Virginia claims that these back trajectories suggest that West Virginia's contributions are insignificant. Submission at 14-17 (JA056-59); Br. 40-41. This argument gives more weight to back trajectories than can be technically justified, Proposal at 9526 (JA316); *see also* RTC at 357-58 (JA405-06), and regardless, West Virginia's back-trajectory analysis supports EPA's decision.

A back-trajectory analysis uses meteorological data to estimate the most likely route a parcel of air at a particular location (*e.g.*, a downwind receptor) traveled over a specified time. *See* Proposal at 9526 (JA316). Back trajectories have less utility than photochemical modeling, like the Alpine modeling and EPA's modeling. Back trajectories only estimate wind direction; they cannot quantify an upwind state's contributions to the formation of ozone in a downwind state. RTC at 360-61, 363 (JA407-08, JA409). Moreover, back trajectories show only a centerline for the movement of air, with greater uncertainty the farther back

in time the trajectory goes. *Id.* at 360 (JA407); Proposal at 9526 (JA316). So, examining only the centerline does not fully consider whether ozone precursors from West Virginia on either side of the centerline were transported to downwind receptors. Proposal at 9526 (JA316); *see* RTC at 360-61 (JA407-08). In contrast, photochemical modeling is designed specifically to quantify an upwind state's contribution to ozone pollution in a downwind state. *See* RTC at 186-87 (JA 395-96); *see also* Disapproval at 9352-54 (JA529-31). Thus, at most, EPA views back trajectories as useful to qualitatively assess whether the linkages identified in the photochemical modeling are corroborated. RTC at 369-72 (JA410-13).

In fact, West Virginia's back-trajectory analysis *supported* the photochemical modeling results. As EPA explained, West Virginia itself acknowledged that 26% of the air masses that it analyzed crossed West Virginia's borders. *Id.* (JA410-13); Submission at 17 (JA059). Indeed, West Virginia identified that air at one receptor to which it was linked had come from West Virginia on roughly 50% of the 20 days the monitor exceeded the 2015 ozone standard in 2015-2017.⁵ Proposal at 9526 (JA316); Submission App. H (JA093-208). Thus, West Virginia's back-trajectory analysis bolstered the Alpine modeling by demonstrating West Virginia is upwind of downwind ozone problems.

⁵ As few as four exceedance days a year can lead to nonattainment; attainment of the 2015 ozone standard is calculated by averaging the fourth highest daily measured ozone value in a year from three consecutive years. 40 C.F.R. § 50.19(b).

C. EPA’s evaluation of West Virginia’s Submission was consistent with its statutory authority and the Good Neighbor provision.

Contrary to West Virginia’s assertions, Br. 33-37, EPA did not disapprove West Virginia’s Submission merely to pursue the Agency’s own national policy preferences. EPA disapproved the Submission because of the many legal and technical flaws explained above, *supra* Argument I.B. EPA’s review was consistent with its longstanding practice of independently reviewing state submissions using the 4-step framework—which West Virginia chose to use, as well—to evaluate Good Neighbor plans’ compliance with the Act.

West Virginia critiques EPA’s consistent review of states’ submissions, casting it as a “presumption of national uniformity,” but the State’s critique ignores the flaws in its own Submission, as described above, and the necessity of applying consistent principles to disparate facts in evaluating states’ interstate ozone obligations. EPA issued the Disapproval pursuant to its statutory obligations not just for West Virginia but for 21 states. EPA’s concern that, in taking this action, the Agency should treat states consistently and equitably derives directly from the text of the Good Neighbor Provision itself and the larger structure of the Act. 42 U.S.C. § 7410(a)(2)(D)(i)(I); Disapproval at 9365, 9374 & n.325 (JA542, JA551). Ozone presents a regional-scale pollution problem in which multiple states

nationwide contribute to unhealthy air in multiple other states. *See* Disapproval at 9342, 9380 (JA519, JA557).

West Virginia essentially advocates for a review scheme in which states run the game with no referee: under West Virginia’s articulation, each upwind state can decide for itself whether implementing emissions controls is “reasonable” without considering the effects of such choices on other states. But this would make implementation of the Good Neighbor Provision unfair and unworkable. *See, e.g., EME Homer*, 572 U.S. at 519 (holding that EPA’s approach is an “equitable solution to the allocation problem the Good Neighbor Provision requires the Agency to address”); *Maryland v. EPA*, 958 F.3d 1185, 1201 (D.C. Cir. 2020) (*per curiam*) (recognizing that Good Neighbor actions “equalize the burdens between upwind and downwind states”). What West Virginia presents as EPA’s policy preference is a nationally consistent approach to reviewing all state submissions—an approach that ensures fairness and helps downwind achievement of air quality standards, comports with the plain language of the Act and case law, and accords with EPA’s longstanding practice. *See supra* Background II.E., Arg. I.A.

West Virginia takes issue with EPA’s review of its Submission, asserting federal overreach merely because EPA expected states to technically and legally justify their alternative methodologies and conclusions. Br. 38-39. But EPA’s expectation was eminently reasonable and consistent with the Act. States present

technical justifications and rely upon scientifically acceptable methodologies to demonstrate that their submissions comply with the Act. Otherwise, a state could simply assert with little to no rationale that it will not significantly contribute to nonattainment or interfere with maintenance. Unquestioning deference to state conclusions—particularly in the context of the multistate, “thorny causation problem” of interstate ozone pollution, *EME Homer*, 572 U.S. at 514—would entirely negate EPA’s statutory responsibilities under the Good Neighbor Provision.

In sum, EPA acted within its statutory authority in evaluating West Virginia’s Submission for compliance with the Good Neighbor Provision, taking into account the need for consistency among states in addressing interstate ozone pollution, and finding significant legal and technical flaws warranting disapproval.

D. While not dispositive, EPA’s consideration of the 2016-based modeling was lawful and reasonable.

EPA’s consideration of the 2016-based modeling was not outcome determinative to its disapproval of West Virginia’s Submission, because West Virginia was linked under the State’s own Alpine modeling, and EPA disapproved the Submission based on its own terms. *See supra* Arg. I.B. Thus, even if EPA erred in considering it, that error was harmless and this Court need not reach this issue in upholding EPA’s Disapproval. *See Avail Vapor, LLC v. FDA*, 55 F.4th 409, 425-26 (4th Cir. 2022) (concluding that, even if the agency failed to consider

certain information, the error was harmless because it still would have taken the same, otherwise lawful action), *cert. denied*, 144 S. Ct. 277 (2023); *cf. Sierra Club v. EPA*, 939 F.3d 649, 687 (5th Cir. 2019) (upholding EPA action based on state's chosen modeling without reaching merits of EPA's modeling).

Nonetheless, in the Disapproval, EPA lawfully and reasonably considered its 2016-based modeling and recent measured ozone levels at monitoring sites. West Virginia argues EPA could not consider the 2016-based modeling because it (1) departed from longstanding policy, (2) unfairly changed the standard, and (3) was not a factor Congress intended the Agency to consider. Br. 43-53. These arguments all lack merit. In this context, EPA reasonably considered (and arguably was obligated to consider) up-to-date modeling in taking this action, and doing so was consistent with EPA's past actions.

1. Under the APA, EPA could not ignore the state-of-the-science 2016-based modeling.

EPA's consideration of updated data and analysis when evaluating states' submissions for compliance with the Act is lawful and consistent with the APA. Under the APA, an agency must examine the "relevant data" and "articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 (internal quotation marks and citation omitted); *see also* Disapproval at 9366 (JA543). Agencies "cannot *ignore* new and better data" that conflicts with their

decision making and their statutory requirements. *Dist. Hosp. Partners, L.P. v. Burwell*, 786 F.3d 46, 57 (D.C. Cir. 2015); *see, e.g., Sierra Club v. EPA*, 671 F.3d 955, 968 (9th Cir. 2012) (“*Sierra Club 2012*”) (holding that EPA acted arbitrarily by ignoring new data in its rulemaking on a state plan); *cf. ATK Launch Sys., Inc. v. EPA*, 669 F.3d 330, 340 (D.C. Cir. 2012) (upholding EPA’s analysis of pollution transport because it “was reasonably based upon the best available information” and petitioner “fail[ed] to demonstrate that EPA ignored new information”); *Hearth, Patio & Barbecue Ass’n v. EPA*, 11 F.4th 791, 807-08 (D.C. Cir. 2021) (holding that the agency “acted responsibly by taking account of the more recent analysis of the older data used . . . and by considering the newer data used”).⁶

There are particularly good reasons for not relying on outdated data in the Good Neighbor context. The state-of-the-science 2016-based modeling for projecting future ozone concentrations and contributions is relevant to EPA’s obligation under the Good Neighbor Provision to approve only those state submissions that adequately prohibit significant contributions based on a forward-looking analysis. *See* Disapproval at 9364, 9366 (JA541, JA543). It was

⁶ Courts have recognized that agencies *may* use older information in some cases when accompanied by a reasoned explanation. *See, e.g., Bd. of Cnty. Comm’rs of Weld Cnty. v. EPA*, 72 F.4th 284, 289-90 (D.C. Cir. 2023) (on remand, upholding EPA’s reliance on older data used in its initial rulemaking because EPA reasonably explained that using the same data for designating attainment areas would facilitate consistent treatment of all affected areas).

appropriate to consider the latest nationwide modeling and monitoring data to make projections concerning the 2023 analytic year in determining states' compliance with the Good Neighbor Provision on a consistent basis in the Disapproval. *See West Virginia*, 362 F.3d at 867 (“[T]his Court had already held that the EPA’s decision to rely upon [its own model] instead of inconsistent projections offered by individual states was not arbitrary and capricious.”) (citing *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1052-53 (D.C. Cir. 2001)).

Here, EPA, with state participation, updated its modeling to a 2016 base year, as it periodically does pursuant to its modeling guidance to ensure that its modeling results do not grow stale. *Supra* Background III.A. EPA further refined its 2016-based modeling to account for emissions reductions from the Revised Update Rule for the 2008 ozone standard and to improve reliability and reduce underpredictions in projecting 2023 ozone levels. *Supra* Background II.D. Consistent with its prior modeling, EPA’s 2016v3 modeling showed that monitoring sites associated with nonattainment areas throughout the country were likely to continue to violate the 2015 ozone standard in 2023. Disapproval at 9367 (JA544). Under every iteration of modeling, including the Alpine modeling, West Virginia was linked to downwind receptors in the same nonattainment area. *Supra* Background III.A. And, in response to public comments, EPA examined recently measured ozone levels from the receptors in 2021 and 2022, which further

supported the modeling’s identification of places that would struggle to attain the 2015 ozone standard. *Id.* at 9349, 9370 (JA526, JA547).

In short, the best available information—the state-of-the-science 2016-based modeling and recent monitoring data—was a relevant factor EPA could not ignore in conducting the “substantive inquiry” the Good Neighbor Provision requires. *Maryland*, 958 F.3d at 1201; *see also supra* Arg. I.A. In considering the 2016v3 modeling, EPA provided a reasoned response to comments and gave a thorough explanation for why the 2016v3 modeling is reliable. Disapproval at 9344-50, 9366-67 (JA521-27, JA543-44); *see also 1000 Friends*, 265 F.3d at 230 (explaining that whether it was appropriate to rely on older modeling was “a question *for the EPA* to determine”). Thus, EPA properly “examine[d] the relevant data and articulate[d] a satisfactory explanation for its action.” *1000 Friends*, 265 F.3d at 238.

2. EPA’s consideration of the state-of-the-science 2016-based modeling comports with EPA’s review obligations under the Act.

EPA’s consideration of post-submission data when evaluating Good Neighbor submissions also comports with the Act’s plain text. As explained above, *supra* Arg. I.A, EPA may only approve a submission “if it meets all of the applicable requirements” of the Act. 42 U.S.C. § 7410(k)(3). The Good Neighbor Provision requires the prohibition of emissions that “will” significantly contribute

to ozone problems in other states. *Id.* § 7410(a)(2)(D)(i). And, “consistent with” Title I of the Act, the elimination of significant contribution must occur “as expeditiously as practicable, but no later than” the next attainment date. *Id.* § 7502(a)(2)(A); Disapproval at 9340-41 (JA517-18).

The Act’s procedural deadlines—the timing of a state’s submission and EPA’s review of such submission—impose no bar on EPA from considering newer data. *See Wisconsin*, 938 F.3d at 322; Disapproval at 9366-67 (JA543-44). While the Act provides that EPA “shall” act on state submissions within a specified time, 42 U.S.C. § 7410(k)(2), the Supreme Court has consistently declined to treat such deadlines, without more, as precluding later action. *Barnhart v. Peabody Coal Co.*, 537 U.S. 149, 158 (2003). The Act addresses agency delay by providing for citizen-suit enforcement to compel action, not by altering the scope of what EPA may consider. *See* Disapproval at 9365 (JA542) (citing, *e.g.*, *Oklahoma*, 723 F.3d at 1223-24).

The forward-looking nature of the Good Neighbor Provision reinforces this. The Act prohibits upwind states’ emissions that “will” contribute significantly to nonattainment or “will” interfere with maintenance. 42 U.S.C. § 7410(a)(2)(D)(i). Given this text, it would be “anomalous” for EPA to rely exclusively on older data to make projections of whether downwind states will attain air-quality standards rather than more recent, reliable data. *Wisconsin*, 938 F.3d at 321-22; *see also*

Disapproval at 9366 (JA543). Indeed, in *Wisconsin*, the D.C. Circuit upheld EPA's use of its updated modeling because of the forward-looking nature of the Good Neighbor Provision. 938 F.3d 303. Rejecting a state's argument that EPA's analysis should be limited to air-quality conditions in existence at the time of the statutory deadline for state submissions, the court found "[state] submission deadlines, unlike attainment deadlines, are 'procedural' and therefore not 'central to the regulatory scheme.'" *Id.* at 322 (quoting *Sierra Club v. EPA*, 294 F.3d 155, 161 (D.C. Cir. 2002)).

Prohibiting EPA from considering updated data would lead to absurd results. For example, Wyoming submitted a plan based on the 2011-based modeling that showed Wyoming contributed to downwind ozone nonattainment in 2023. *See* 87 Fed. Reg. 31495, 31508-09 (May 24, 2022). The 2016v3 modeling results showed that Wyoming is no longer projected to contribute to downwind ozone air-quality problems. *See* 88 Fed. Reg. 54998, 55004 (Aug. 14, 2023). Under West Virginia's contention, EPA would have to use the 2011-based modeling and thus (if it disagreed with Wyoming's arguments about why its contributions were not significant) disapprove Wyoming's submission, even though the most up-to-date data suggests Wyoming is not projected to contribute to downwind ozone nonattainment. *Id.* at 54998; *see also* RTC at 62 (JA394). Similarly odd results are possible for West Virginia. Given that EPA used 2016-based modeling in the

Revised Update Rule, if West Virginia were to prevail on this argument, EPA would have evaluated West Virginia's 2008 ozone standard obligations on more recent modeling than its 2015 ozone standard obligations. Further, EPA could not account for more recent emissions reductions, such as from the Revised Update Rule.

None of the cases on which West Virginia relies suggest an affirmative limitation on the information EPA can consider when acting on a state's Good Neighbor submission. To start, *Sierra Club v. EPA*, 356 F.3d 296 (D.C. Cir. 2004) ("*Sierra Club 2004*"), does not support West Virginia's position. Br. 46-47. The rule at issue there pertained to a different type of implementation plan called an attainment plan, 42 U.S.C. § 7502(b), which must provide a "current inventory of actual emissions," *id.* § 7502(c)(3); *see also* RTC at 61 (JA393). The court upheld EPA's decision to allow states to use older data in meeting this requirement because obligating states to redo their submissions using an updated model released one month before the state plans were submitted to EPA would cause unnecessary delay in the process of implementing emissions control strategies by the attainment date. *Sierra Club 2004*, 356 F.3d at 308. Here, EPA did not require states to redo their submissions and did not disapprove any state plan based on choice of modeling. RTC at 60 (JA392); *see supra* Arg. I.B. *Sierra Club 2004* does

not endorse the position or mandate that EPA cannot consider information not available to states when they developed their submissions. *See* RTC at 61 (JA393).

Indeed, in *Sierra Club 2012*, which concerns the same statutory provision at issue in *Sierra Club 2004*, the Ninth Circuit held that EPA arbitrarily approved a state submission (submitted six years prior) based on data that was available at the time of submission because, in doing so, EPA ignored newer data. 671 F.3d at 966-68. The court did not view this holding as inconsistent with the D.C. Circuit's decision in *Sierra Club 2004* because it found EPA faced few burdens in considering the newer data and doing so would not have prolonged EPA's action. *Id.* at 966-67.

West Virginia also cites *Kentucky v. EPA*, Nos. 23-3216/3225, 2023 U.S. App. LEXIS 18981, at *10 (6th Cir. July 25, 2023), which in turn quotes *New York v. EPA*, 964 F.3d 1214, 1223 (D.C. Cir. 2020). Br. 49. The *Kentucky* decision is an unpublished order that carries no precedential value. And *New York* is inapposite. There, the D.C. Circuit found to be arbitrary EPA's denial of a downwind state's petition alleging that upwind sources were violating the Good Neighbor Provision. EPA had suggested that a downwind petitioner could demonstrate an upwind state's noncompliance with the Good Neighbor Provision at Step 3 through four possible analyses but then: (1) reversed its position on the first option "without any reasoned explanation," *New York*, 964 F.3d at 1222; and (2) stated that an adequate

analysis may require detailed and technically particularized information on emissions from upwind states' sources, much of which is not typically accessible to the public, including the petitioning, downwind state, *id.* at 1223-24.

The Disapproval presents no similar inconsistency. EPA's general ozone-transport modeling methodologies have remained constant, with each iteration incorporating updated information. *See* Background III.A. Nor did EPA erect an insurmountable informational hurdle for states preparing submissions. Br. 49. EPA provided the 2011-based modeling results as information states could consider, but EPA was clear in the Modeling Memo that it did not constitute any final decision by EPA. Modeling Memo at 2 (JA248). EPA accepted the alternative Alpine modeling in West Virginia's Submission, noting that it demonstrated contributions to downwind nonattainment. Proposal at 9525 (JA315). West Virginia's Step 3 analysis was inadequate regardless of which modeling is considered. Disapproval at 9342-43, 9375-76 (JA519-20, JA552-53); RTC at 60 (JA392).

In short, the Act does not require EPA to rely on outdated modeling in its Good Neighbor analysis or to reject more recent and reliable modeling and data. *See Weld Cnty.*, 72 F.4th at 290 (recognizing that EPA generally must base its decisions on the best available data); *see also* Disapproval at 9366 (JA543).

3. There Was No “Longstanding” Policy Prohibiting EPA from Considering Updated Modeling.

As an initial matter, the Court cannot consider this argument—that the Disapproval is unlawful for deviating from an allegedly “longstanding” EPA policy, Br. 44-50—because of the doctrine of administrative waiver. *1000 Friends*, 265 F.3d at 228 (4th Cir. 2001) (explaining that “[c]ourts typically decline to consider issues not raised before an administrative agency because to do otherwise would ‘usurp[] the agency’s function’ and would ‘deprive the [agency] of an opportunity to consider the matter, make its ruling, and state the reasons for its action.’”) (quoting *Unemployment Comp. Comm’n v. Aragan*, 329 U.S. 143, 155 (1946)). EPA received no comments claiming EPA deviated from any “longstanding policy” under Section 7502(c)(3) or other provisions of the Act or providing citations to Clean Air Act actions to establish that any such longstanding policy exists. EPA thus had no opportunity to respond to these arguments on the record.

But even if not administratively waived, West Virginia’s argument fails. A reliance interest can only be based on a “longstanding” policy. *Breeze Smoke, LLC v. FDA*, 18 F.4th 499, 507 (6th Cir. 2021). The only longstanding policy here is that EPA consistently considers the best available information in evaluating Good Neighbor submissions for substantive compliance with the Act. *See, e.g.*, 81 Fed. Reg. at 74507 (addressing remand of Cross-State Rule, *EME Homer City*

Generation, L.P. v. EPA, 795 F.3d 118 (D.C. Cir. 2015), by relying on updated modeling prepared after remand); 81 Fed. Reg. 38957, 38958 (June 15, 2016) (disapproving Ohio’s and Indiana’s Good Neighbor submissions for the 2008 ozone standard based in part on updated modeling). EPA has also taken a similar approach in addressing Good Neighbor obligations for other pollution standards. *See* 86 Fed. Reg. 31645, 31648-49, 31654 (June 15, 2021) (proposing to approve Kansas’s and Nebraska’s Good Neighbor submissions for the 2010 sulfur dioxide standards based partially on analysis EPA developed after submission), *approved on those grounds in* 86 Fed. Reg. 43960 (Aug. 11, 2021). The Disapproval follows EPA’s longstanding practice under the Good Neighbor Provision.

West Virginia cites several EPA actions in other contexts to argue that EPA has a “longstanding” policy of limiting its analysis to modeling available at the time of a submission. Br. 46. None of those actions support the proposition that EPA has any such “longstanding” policy. For example, in conditionally approving the attainment plans at issue in *Sierra Club 2004* under Section 7502(c)(3), one of the conditions of approval required states to update their plans using the more recent model within one year, otherwise the approval would revert to a disapproval. 68 Fed. Reg. 19106, 19107 (Apr. 17, 2003); 42 U.S.C. § 7410(k)(4). Additionally, it is common EPA practice to consider updated information in assessing attainment plans, even if EPA does not require states to incorporate this

information into their submissions. *See, e.g.*, 84 Fed. Reg. 56385 (Oct. 22, 2019) (approving attainment plan from West Virginia based partially on EPA’s supplemental modeling analysis in 84 Fed. Reg. 29456 (June 24, 2019)); 88 Fed. Reg. 10464, 10465 (Feb. 21, 2023) (approving Illinois’s attainment plan based partially on EPA’s supplemental modeling).⁷

In short, EPA has no longstanding policy of limiting its consideration to the information available to states at a certain point in time when acting on Good Neighbor submissions. EPA’s decision to consider the 2016-based modeling to confirm the Submission’s claims was reasonable, consistent with EPA’s past actions, and grounded in the Act.

II. If the Court holds for West Virginia, the appropriate remedy is remand without vacatur.

EPA’s Disapproval is lawful and should be upheld. But even if the Court finds some error with the Disapproval as it relates to West Virginia, vacatur would be inappropriate. *Contra* Br. 54-56. Instead, the Court should remand to EPA while

⁷ West Virginia relies on *Wages & White Lion Investments, LLC v. FDA*, 90 F.4th 357 (5th Cir. 2024) (en banc), Br. 43, 48, but that out-of-circuit decision is irrelevant. There, the en banc Fifth Circuit found FDA had unlawfully changed its position regarding what studies were required to approve premarket tobacco applications. *Id.* at 376-79. This Court upheld FDA’s decision over near-identical objections in *Avail Vapor, LLC v. FDA*, 55 F.4th 409, 421-23 (4th Cir. 2022), *cert. denied*, 144 S. Ct. 277 (2023). Further, here, EPA did not change any policy on what information it would consider; EPA evaluated West Virginia’s submission with the State’s chosen Alpine modeling and considered its own more recent modeling. *See supra* Arg. I.B.

allowing the Disapproval to remain in place pending prompt completion of remand proceedings.

Remand without vacatur “is generally appropriate when ‘there is at least a serious possibility that the [agency] will be able to substantiate its decision’ given an opportunity to do so, and when vacating would be ‘disruptive.’” *Radio-Television News Directors Ass’n v. FCC*, 184 F.3d 872, 888 (D.C. Cir. 1999) (quoting *Allied-Signal, Inc. v. U.S. Nuclear Regul. Comm’n*, 988 F.2d 146, 151 (D.C. Cir. 1993)) (remanding without vacatur the agency’s decision because it “may uphold [the rules] again . . . [with] a more detailed defense”); *see also Md. Native Plant Soc’y v. U.S. Army Corps of Eng’rs*, 332 F. Supp. 2d 845, 862 (D. Md. 2004) (“Where a court determines that a remand is appropriate because an agency’s explanation is deficient, remand without vacatur allows the agency an opportunity to respond to the deficiency identified by the court.”). Here, both prongs—(1) the likelihood that the agency’s action could be sustained on remand and (2) the disruptive consequences that might flow from vacatur of the action—show that remand without vacatur would be proper.⁸

⁸ Though this Court has not formally adopted the two-prong *Allied-Signal* test, it has applied the test to assess whether vacatur is appropriate. *See Sierra Club v. U.S. Army Corps of Eng’rs*, 909 F.3d 635, 655 (4th Cir. 2018). Many other courts have adopted this test. *See, e.g., Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng’rs*, 781 F.3d 1271, 1290 (11th Cir. 2015); *Nat. Res. Def. Council, Inc. v. EPA*, 808 F.3d 556, 584 (2d Cir. 2015); *Prometheus Radio Project v. FCC*,

First, West Virginia primarily alleges procedural defects and record-based errors that EPA could readily address and correct on remand. For example, if the Court were to conclude that EPA erred in relying on the 2016-based modeling and data, EPA could still support the Disapproval on remand with a supplemental explanation because EPA disapproved the State's Submission based on its own technical flaws. *See supra* Arg. I.B. The updated data and modeling was not necessary to support disapproval.

Second, vacatur would further disrupt EPA's efforts to implement Congress's mandate that upwind states prohibit emissions contributing significantly to nonattainment or interfering with maintenance as expeditiously as practicable. *See Maryland*, 958 F.3d at 1203-04; *Wisconsin*, 938 F.3d at 317. Vacatur would leave downwind areas to suffer continuing poor air quality and inequitable regulatory burdens resulting from West Virginia's pollution and hinder downwind states' efforts to attain the 2015 ozone standards while West Virginia "reaps the benefits of the economic activity causing the pollution without bearing all the costs." *EME Homer*, 572 U.S. at 495.

Without the Disapproval, EPA would lack the authority to implement the Good Neighbor Plan for West Virginia. And without that plan or an approved state

824 F.3d 33, 52 (3d Cir. 2016); *W. Watersheds Project v. Haaland*, 69 F.4th 689, 722 (10th Cir. 2023).

plan that meets the statutory requirements, downwind states continue to obtain no relief from the significant contributions of West Virginia. The Good Neighbor Plan was also designed to comply with prior court rulings and deliver air-quality benefits already delayed by several years beyond the statutory schedule. *See, e.g.*, 88 Fed. Reg. at 36690 (noting Marginal attainment date has already passed). Vacating EPA's action as applied to West Virginia would further disrupt the schedule of cost-effective emissions reductions, *see* 88 Fed. Reg. at 36737-39, and delay "meaningful downwind air quality improvements," *id.* at 36748, that the Good Neighbor Plan is designed to deliver.

Lifting the stay would allow EPA to implement the Good Neighbor Plan for West Virginia, with real health benefits to communities in the downwind nonattainment areas, like Connecticut and New York. The Plan would encourage better emissions performance from power plants and other emission sources, leading to health benefits vastly outweighing its compliance costs. *See* 88 Fed. Reg. at 36737 (showing achievable NO_x emission reductions at West Virginia's power plants), 36747 (showing resulting improvements in air quality), 36850-51 (quantifying resulting health benefits).

Out of concern for public health and the environment, courts historically have not vacated EPA actions implementing the Good Neighbor Provision when remand is appropriate. *See, e.g., Wisconsin*, 938 F.3d at 336 ("we do not vacate

regulations when doing so would risk significant harm to the public health or the environment.”); *North Carolina v. EPA*, 550 F.3d 1176, 1178 (D.C. Cir. 2008).

Thus, to the extent the Court determines remand is proper, it should remand without vacatur.

CONCLUSION

For the foregoing reasons, this Court should deny West Virginia’s petition.

Respectfully submitted,

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DATE: June 10, 2024

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CERTIFICATE OF COMPLIANCE

I hereby certify that the foregoing Response Brief complies with Fed. R. App. P. 28(b) and 32(a)(7)(B), (f), and (g), as it complies with typeface requirements and contains 12,987 words, excluding exempted portions.

Date: June 10, 2024

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing Response Brief was filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record, who are required to have registered with the Court's CM/ECF system.

Date: June 10, 2024

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